VIDEOLOGY®
IMAGING SOLUTIONS INC.
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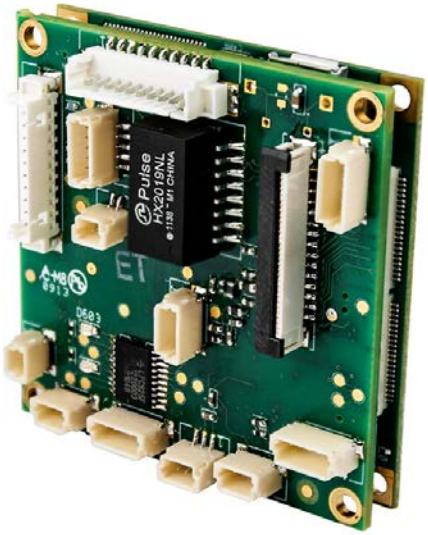
User Manual

60SVM10 / 60SVM10-E

Dual Channel Audio/Video IP Network Server
With 16–bit (BT1120) HD Camera Interface Board



60SVM10 shown
Server and I/O board

60SVM shown
Server board

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1. Introduction

The 60SVM10 is a dual channel, audio/video, H.264/MJPEG encoder designed around the Maxim MG3500 codec.

The 60SVM10-E is the engineering development version of the 60SVM10, and also includes debug ports.

The encoder is a compact design consisting of a CPU board and interface board sandwiched together. The interface board provides all the necessary connectors to support the numerous video and audio inputs/outputs together with communications and GPIO lines.

The main features and capabilities of the 60SVM10 server board include:

- HD digital 1080p and analog simultaneous input to H.264 encoding and multi-stream outputs
- Two audio inputs
- Ultra small 42mm x 42mm
- USB Port for mass storage and 3G/4G cellular modems and GPS interface
- 32GB of SD recording with no frame loss, overwrite option
- 10 second pre-alarm buffer
- 4 GPIOs
- On board LED status lights
- 5VDC available for camera power
- <2 watts power consumption
- PoE - Power over Ethernet (third board)
- SDK is PSIA compatible
- HD-SDI input board (future)

2. Document History

Revision	Issue Date	Author	Reason	CN#
B	06/27/2013	J.S, D.F.	Initial release of 60SVM10	13-0029
C	12/05/2013	RH	Updated for Dual channel specs	13-0081

3. Hardware

3.1. Block Diagram

The block diagram of the audio video encoder is shown in Figure 1.

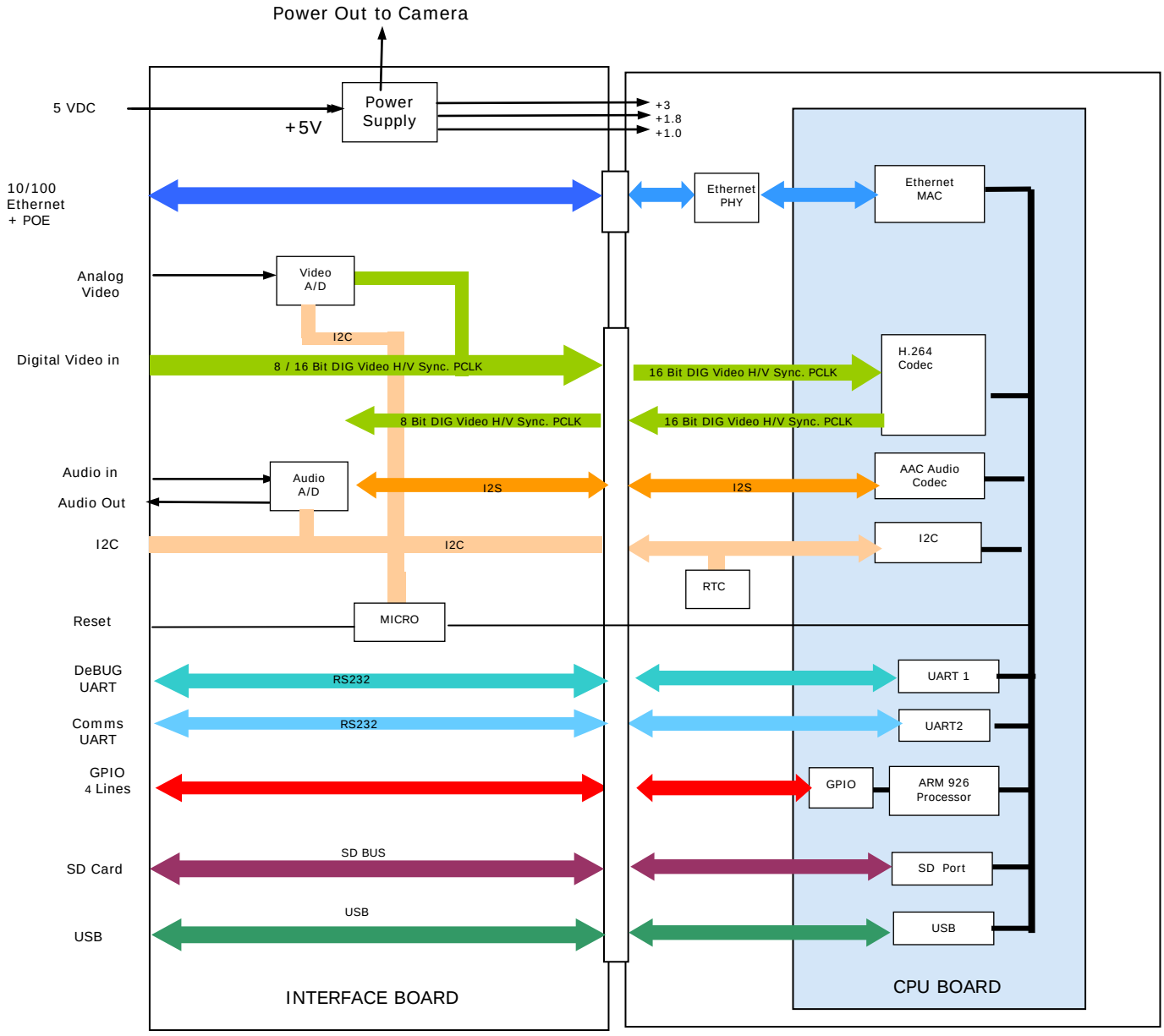


Figure 1: Block Diagram of Audio Video Encoder

4. Inputs/Output

4.1. Video Inputs

The encoder has two video inputs, one analog and one digital. The analog input can accept either CVBS or YC.

The digital video input can accept BT.1120 16 bit or BT.656 or BT.601 8-bit up to 1080p. Each video input can only be used independently. For maximum resolution and frame rates, refer to section 5 A/V Encoder Performance.

Both analog and digital inputs can run concurrently.

4.2. Audio Input

The encoder has two line level (1Vp-p) audio input(s).

4.3. Audio Output

The encoder has a two channel audio output(s).

4.4. GPIO Lines

The encoder has 4 Logic level GPIO lines. These lines may be used for alarm inputs (outputs are in development).

4.5. RS-232

The encoder includes two RS-232 ports, one for debug and one as a general purpose UART (60SVM10-E only).

4.6. I2C

The encoder provides an I2C output for direct control of camera functions such as shutter speed, white balance, etc (60SVM10-E only).

4.7. SD Card Interface (*with external SD card socket*)

The encoder includes a single SD card interface, for storage of video and or audio onto a local SD card. The board will support Class 6 or Class 10 SD cards with a capacity up to 32GB (64GB in progress).

Refer to GUI software manual for detailed information on recording features.

4.8. Programming Interface

There is an on-board microcontroller which is used for system initialization. This connector is not intended for customer use.

4.9. Network Interface

10/100 Base T Ethernet

4.10. Power Supply

The server requires 5 Volts DC with a total power consumption of 2.5 Watts maximum with an attached digital camera. The server provides 5 Volts DC for the Videology digital cameras supported.

5. A/V Encoder Performance

5.1. Video Codec Capabilities:

- Supports H.264 base, main and high profiles.
- Supports MJPEG encoding/decoding.
- Variable or constant bit rate.
- Encoding or decoding up to 1080i at 60 FPS or 1080p at 30 FPS.
- Programmable resolutions and frame rates.
- Video bit rates: 64 kB/s – 62.5 MB/s.

The encoder can support multiple resolutions and frame rate combinations (depending on the video sensor being used).

The following table lists some of the standard formats supported. The listed resolutions are for NTSC standard, although both NTSC and PAL are supported.

Format	Resolution H and V	Max Frame Rate	Scan Format
1080p	1920 x 1080	30	Progressive
1080i	1920 x 1080	60	Interlaced
720p	1280 x 720	60	Progressive
D1	720x 486	60	Interlaced / Progressive
VGA	640 x 480	60	Interlaced / Progressive
CIF	352 x 288	60	Interlaced
SCIF	320 x 240	60	Interlaced
QCIF	176 x 144	60	Interlaced
1.3M	1280 x 1024	15	Progressive

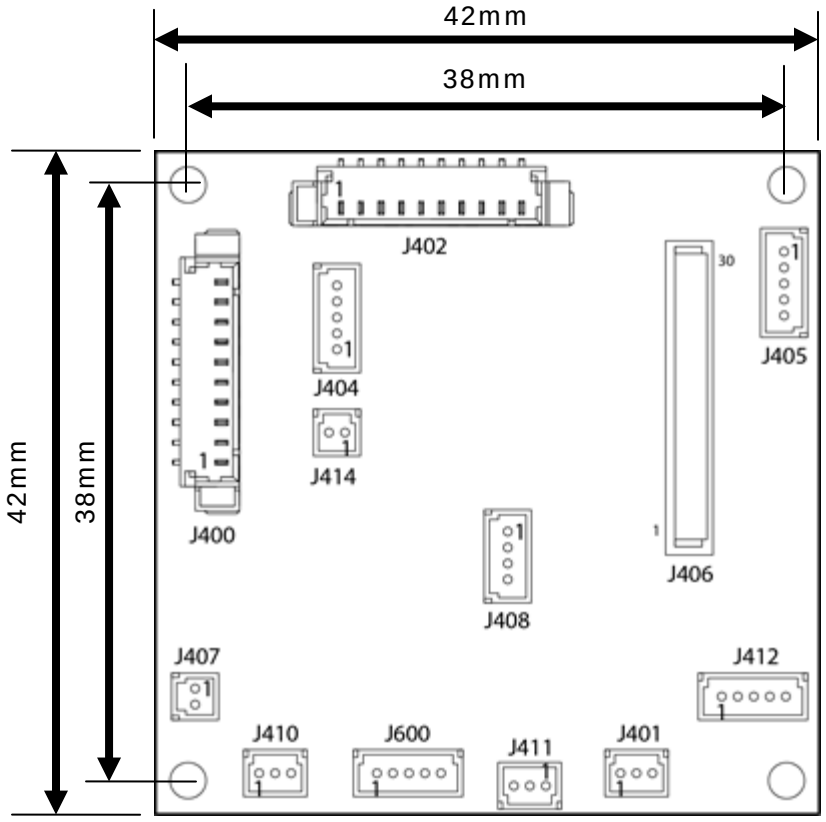
- Note that for 1080i, the image consists of two interlaced fields and thus produces a full frame every 1/30 second.
- 1.3M format is specific to Videology's 1.3 MP digital camera (24C1.3X-DIG).
- By utilizing the scaling feature within the video pre-processor, any picture size and aspect ratio can be created.

5.2. Audio Encoder Capabilities

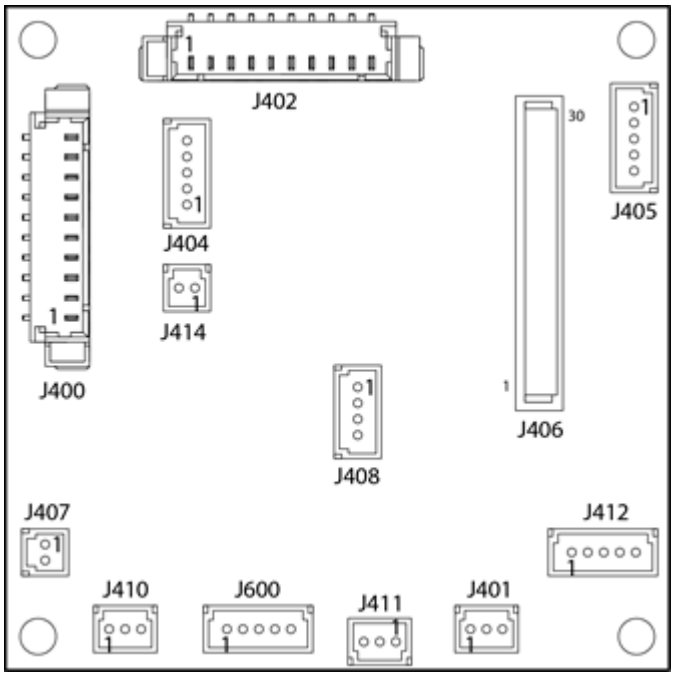
- High-fidelity, 2-channel AAC-LC codec (Default)
- G.711 codec
- Flexible bit rates and sample rates

6. Mechanical

6.1. Dimensions with I/O board



7. Top Side Connectors (Rev B I/O Board)



Front Side

7.1. J400 (10 Pin Header) Ethernet Connection

MOLEX Board Connector 53398-10
MOLEX Cable Connector 051021-1000

Pin #	Function	Label
1	Digital Ground	Digital GND
2	Transmit +	TX +
3	Transmit -	TX -
4	Receive +	RX +
5	Receive -	RX -
6	Center Tap	C T
7	No Connection	NC
8	Phy Power	3.3V DC
9	LED Link Indicator	LED LINK
10	LED Speed Indicator	LED LINK

7.2. J401 (03 Pin Header) Audio In/Out

JST Board Connector BM03B-SRSS-TB
JST Cable Connector SHR-03V-S

Pin #	Function	Label
1	Audio Line In	DS_LIN_CH1
2	Analog Ground	GND
3	Audio Line Out	DS_LOUT_CH1

7.3. J402 (10 Pin Header) SD Card Interface

Molex Board Connector 53398-10
Molex Cable Connector 051021-1000

Pin #	Function	Label
10	SD Card Data 2	SD D2
9	SD Card Data 3	SD D3
8	Command	SD CMD
7	3.3V Power	3.3V
6	GROUND	GND
5	SD Card Clock	SD CLK
4	SD Card Data 0	SD D0
3	SD Card Data 1	SD D1
2	SD Card Detect	SDCD
1	Write Protect	SD WP

7.4. J404 (05 Pin Header) 2 Serial Ports (Debug - UART or RS-232)

JST Board Connector BM05B_SRSS-TB
JST Cable Connector SHR-05V-S

Pin #	Function	Label
1	Port 1 Receive Data Input	MG_RX_DBG
2	Port 1 Receive Data Output	MG_TX_DBG
3	GROUND	DGND
4	Port 2 Receive Data Input	DS_RX_DBG
5	Port 2 Receive Data Output	DS_TX_DBG

7.5. J405 (05 Pin Header) SPI Ports

JST Board Connector JST-BM05B-SRSS-TB
JST Cable Connector SHR-05V-S

Pin #	Function	Label
1	SPI Data Out	MISO
2	SPI Port Clock	MCLK
3	SPI Port Chip Select	SSI
4	SPI Port Data Out	MOSI
5	Digital Ground	DIG GND

7.6. J406 (30 Pin Header) Digital Camera In/Out

Omron Board Connector X F2J-3024-11A

Pin #	Function	Label
1	Vertical Sync input	Vsync
2	Horizontal Sync input	Hsync
3	Pixel Clock input	PixClk
4	Ground	GND
5	Digital Input Bit 15 (MSB)	D15
6	Digital Input Bit 14	D14
7	Digital Input Bit 13	D13
8	Ground	GND
9	Digital Input Bit 12	D12
10	Digital Input Bit 11	D11
11	Digital Input Bit 10	D10
12	Ground	GND
13	Digital Input Bit 9	D09
14	Digital Input Bit 8	D08
15	Digital Input Bit 7	D07
16	Ground	GND
17	Digital Input Bit 6	D06
18	Digital Input Bit 5	D05
19	Digital Input Bit 4	D04
20	Ground	GND
21	Digital Input Bit 3	D03
22	Digital Input Bit 2	D02
23	Digital Input Bit 1	D01
24	Digital Input Bit 0 (LSB)	D00
25	Ground	GND
26	Sensor Reset output	Sensor_RST_N
27	I2C Data	SDAT
28	Ground	GND
29	I2C Clock	SCLK
30	5V Out	+5V

7.7. J407 (02 Pin Header) Power In

JST Board Connector CON-JST-BM02B-SRSS-TB
JST Cable Connector SHR-02V-S (-B)

Pin #	Function	Label
1	+5 V In	+5 V
2	Ground	GND

7.8. J408 (04 Pin Header) S-video In (CVBS or Y/C)

JST Board Connector BM04B_SRSS-TB
JST Cable Connector SHR-04V-S (-B)

Pin #	Function	Label
1	Video C In	DS-VIDC-IN
2	Video Y In*/CVBS	DS-VIDY-IN
3	Ground	GND
4	+5V	+5V

*The Y input is used for CVBS input, with appropriate software changes.

7.9. J410 (03 Pin Header) I^2C Control

JST Board Connector BM03B-SRSS-TB
JST Cable Connector SHR-03-V-S (-B)

Pin #	Function	Label
1	I2C Data	TW_SDAT
2	I2C Clock	TW_SCLK
3	I2C Ground	DGROUND

7.10. J411 (03 Pin Header) Audio In/Out

JST Board Connector BM 03B-SRSS-TB
JST Cable Connector SHR-03V-S

Pin #	Function	Label
1	Audio Line In	DS_LIN_CH2
2	Analog Ground	GND
3	Audio Line Out	DS_LOUT_CH2

7.11. J412 (05 Pin Header) GPIO

JST Board Connector BM05B_SRSS-TB
JST Cable Connector SHR-05-V –S (-B)

Pin #	Function	Label
1	GPIO2	MG_GPIO_2
2	GPIO0	MG_GPIO_0
3	GPIO1	MG_GPIO_1
4	GPIO3	MG_GPIO_3
5	Ground	GND

7.12. J414 Out to Optional PoE Board (5VDC or 12VDC)

JST Board Connector BM02B_SRSS-TB
JST Cable Connector

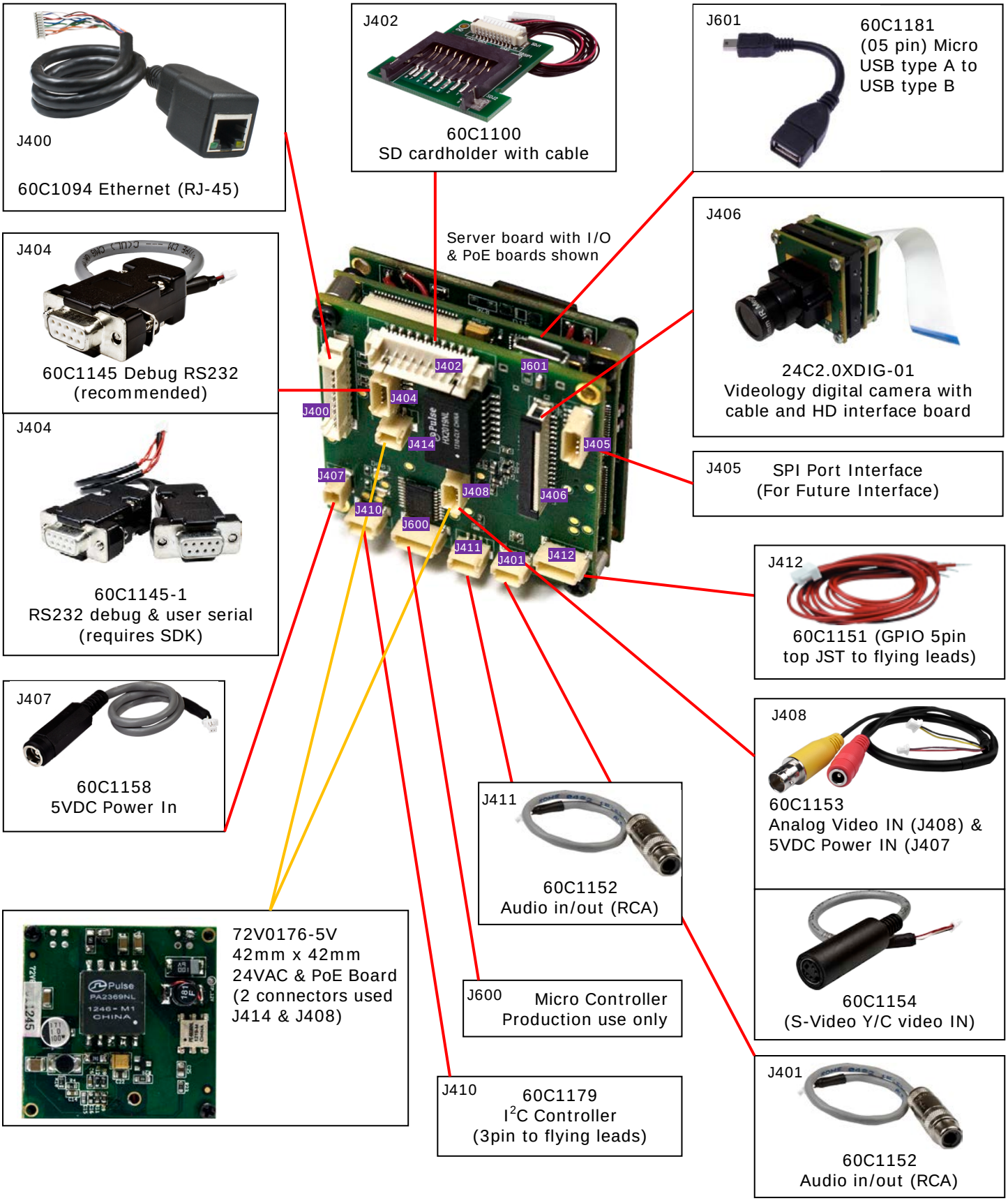
Pin #	Function	Label
1	PoE voltage	PoE High
2	PoE voltage	PoE Low

7.13. J600 (05 Pin Header) Micro Controller Programming

JST Board Connector BM05B-SRSS-TB
JST Cable Connector SHR-05-V-S (-B)

Pin #	Function	Label
1	Power In	3V3
2	Microprocessor Reset	RESET
3	Data	DATA
4	Clock	CLOCK
5	GROUND	GND

8. 60SVM10 I/O Board Cable Diagram



9. Web-Based Graphical User Interface

The web-based server provides a graphical user interface to the Videology 60SVM10 dual channel audio/video encoder, enabling the user to access the server over the internet, to view live camera images and to make changes to the encoder configuration and other configuration settings.

10. System Prerequisites and Setup

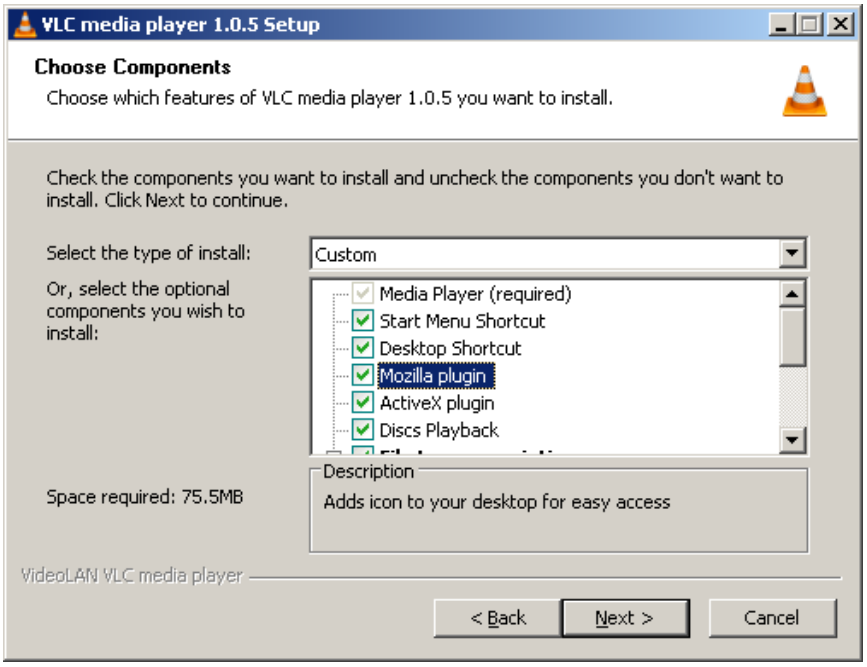
The web-based server GUI, runs directly from the encoder and no software has to be loaded onto the PC other than a suitable video viewing application.

10.1. Video Viewer

To view streaming video and uploaded video files, you will need to load VLC version 1.0.5 or higher. This can be obtained from the web site below.

http://www.videolan.org/vlc/download-windows.html

During installation of VLC you will be prompted to configure the VLC viewer. It is important that you select the Mozilla plugin option from the component list, as shown below.


VLC media player 1.0.5 Setup
Choose Components
Choose which features of VLC media player 1.0.5 you want to install.
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.
Select the type of install:
Custom
Or, select the optional components you wish to install:
Media Player (required)
Start Menu Shortcut
Desktop Shortcut
Mozilla plugin
ActiveX plugin
Discs Playback
Description
Adds icon to your desktop for easy access
Space required: 75.5MB
VideoLAN VLC media player
< Back
Next >
Cancel

10.2. SMTP and FTP Servers

In order to send email alerts and upload video files to a remote FTP site, both an SMTP server and FTP server IP addresses must be setup as described in section 9.12 System Page.

In the case of the SMTP server, if this is a remote server then authentication may be needed, otherwise emails may be blocked.

10.3. Accessing the DVR Remotely

The network server should be accessed through Internet Explorer.

To access the server from a remote PC, simply enter the IP address of the unit into the Internet Explorer address bar. You will be prompted for a user name and password. These are factory set as:

User Name: admin
Password: admin

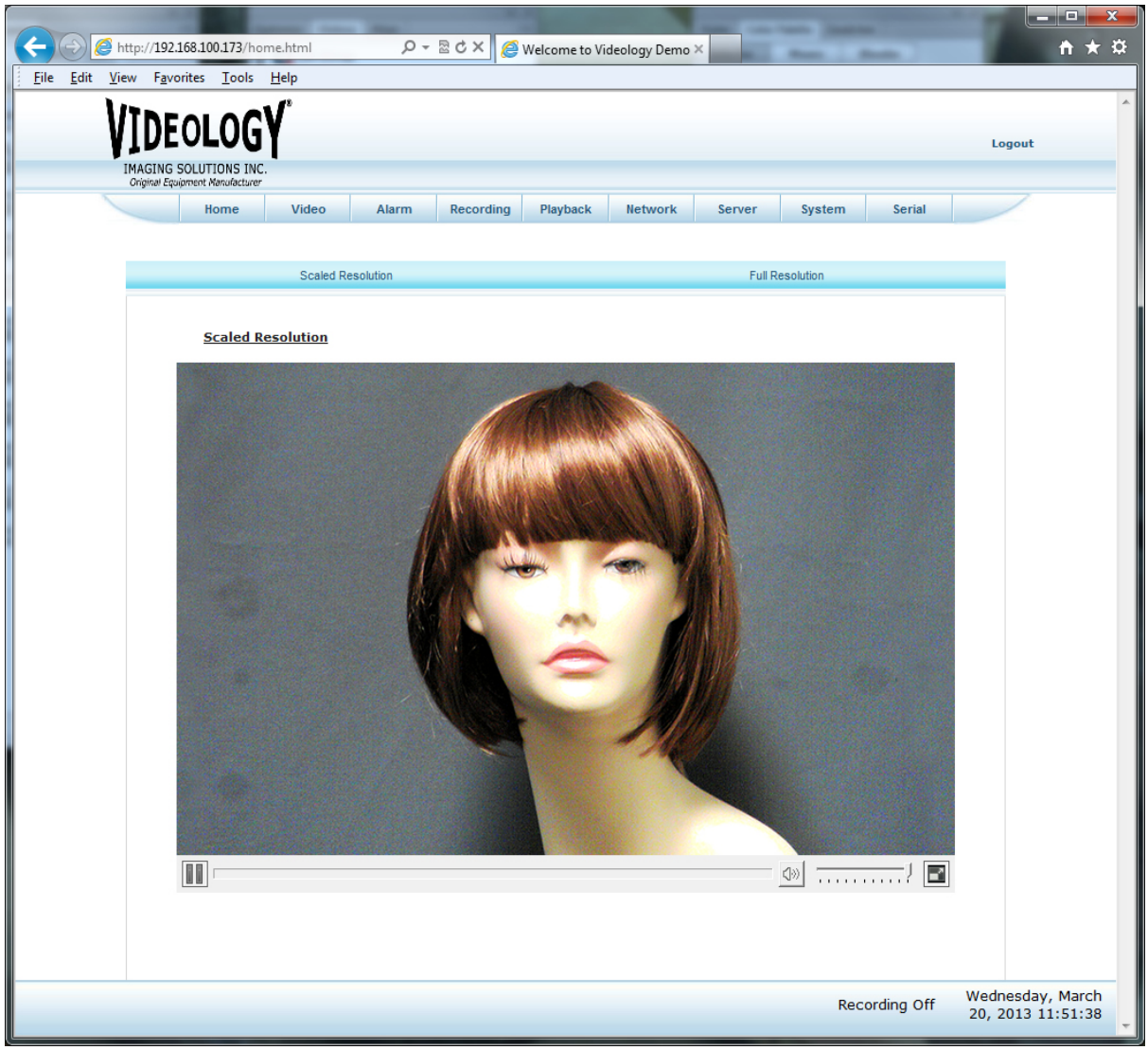
Both of these are case sensitive.

10.4. Structure

The web-based server is comprised of a set of seven pages. The layout and operation of each page is described below.

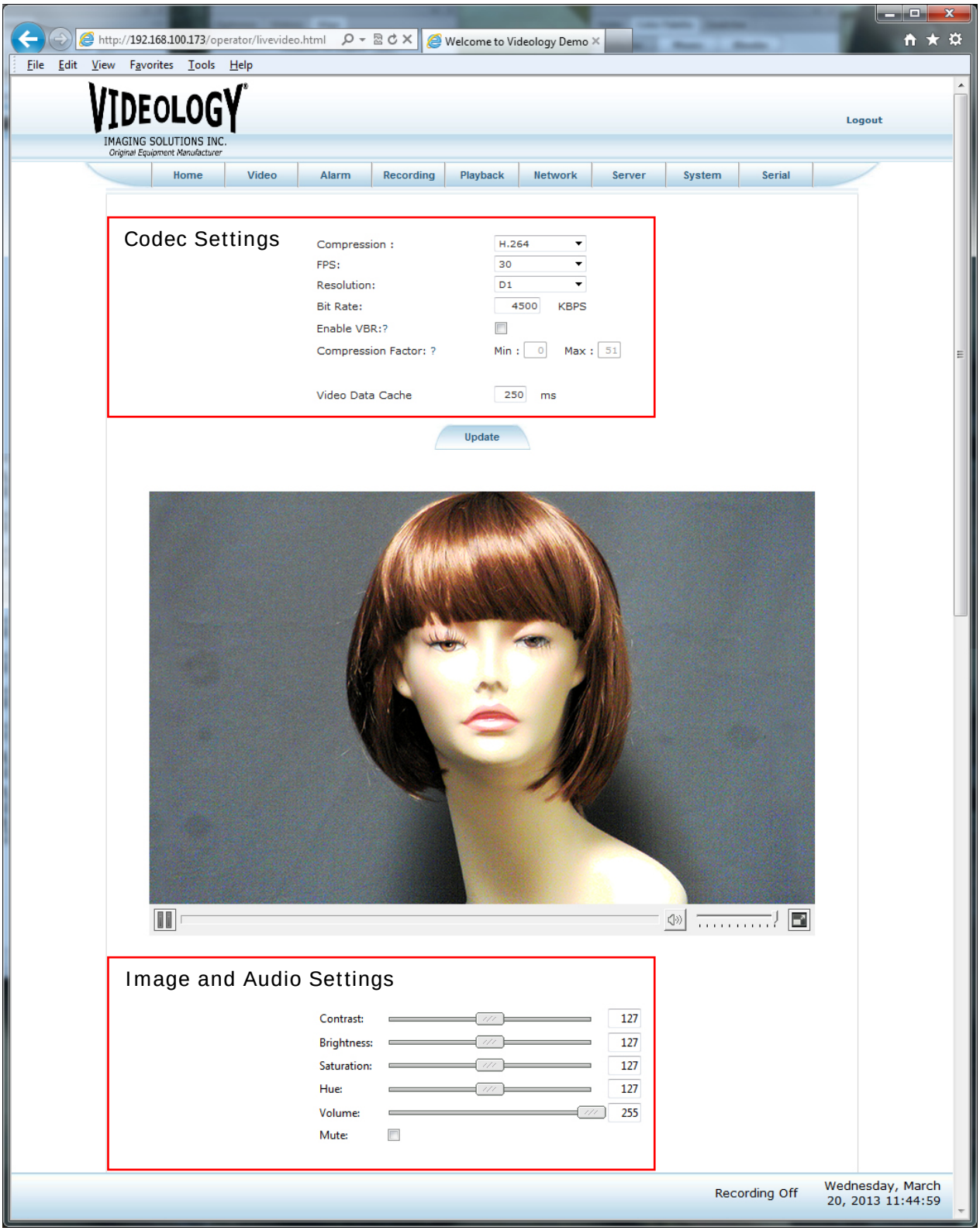
10.5. Home Page

The Home page is simply a live video stream form the camera connected to the server.



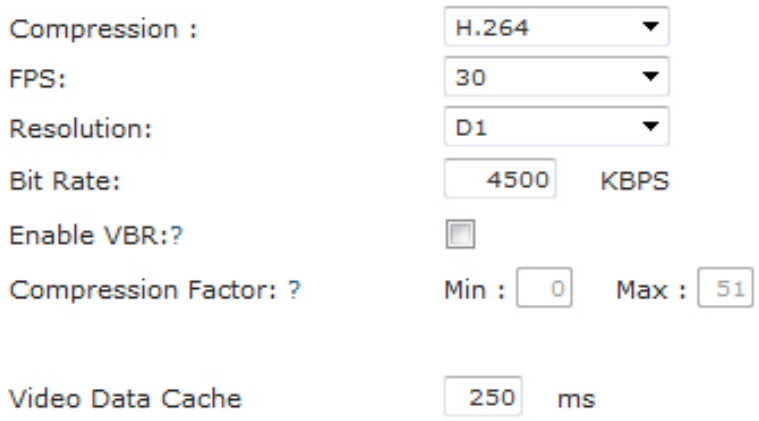
10.6. Video Page

The Video page contains a live video image from the camera and controls for changing the codec and image settings.



10.6.1. Codec Settings

At the top of the page are the controls for setting the video encoder parameters.



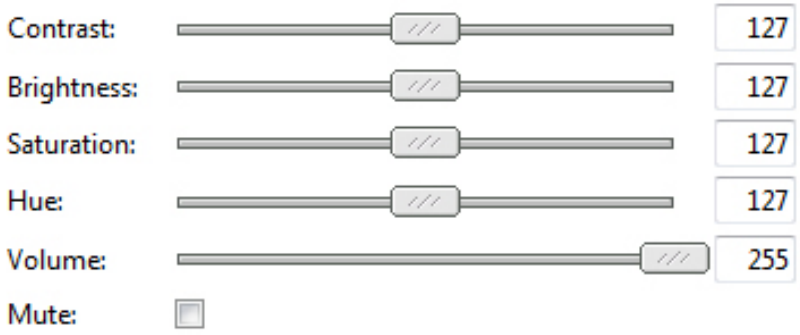
These include:

- Video Channel: (Channel 2 available on Dual channel DVR only; model 60SVM2)
- Compression: The compression method is currently set at H.264 or MJPEG. Please note that MJPEG compression does not contain an audio stream.
- Frame Rate: The frame rate of the streaming video can be adjusted from 1 to 30 FPS (60 FPS future).
- Resolution: The resolution for Analog cameras can be selected from the following options: D1, VGA, CIF and QCIF.
- The resolution for digital cameras is fixed at 1280 x 1024.

10.6.2. Image and Audio Settings

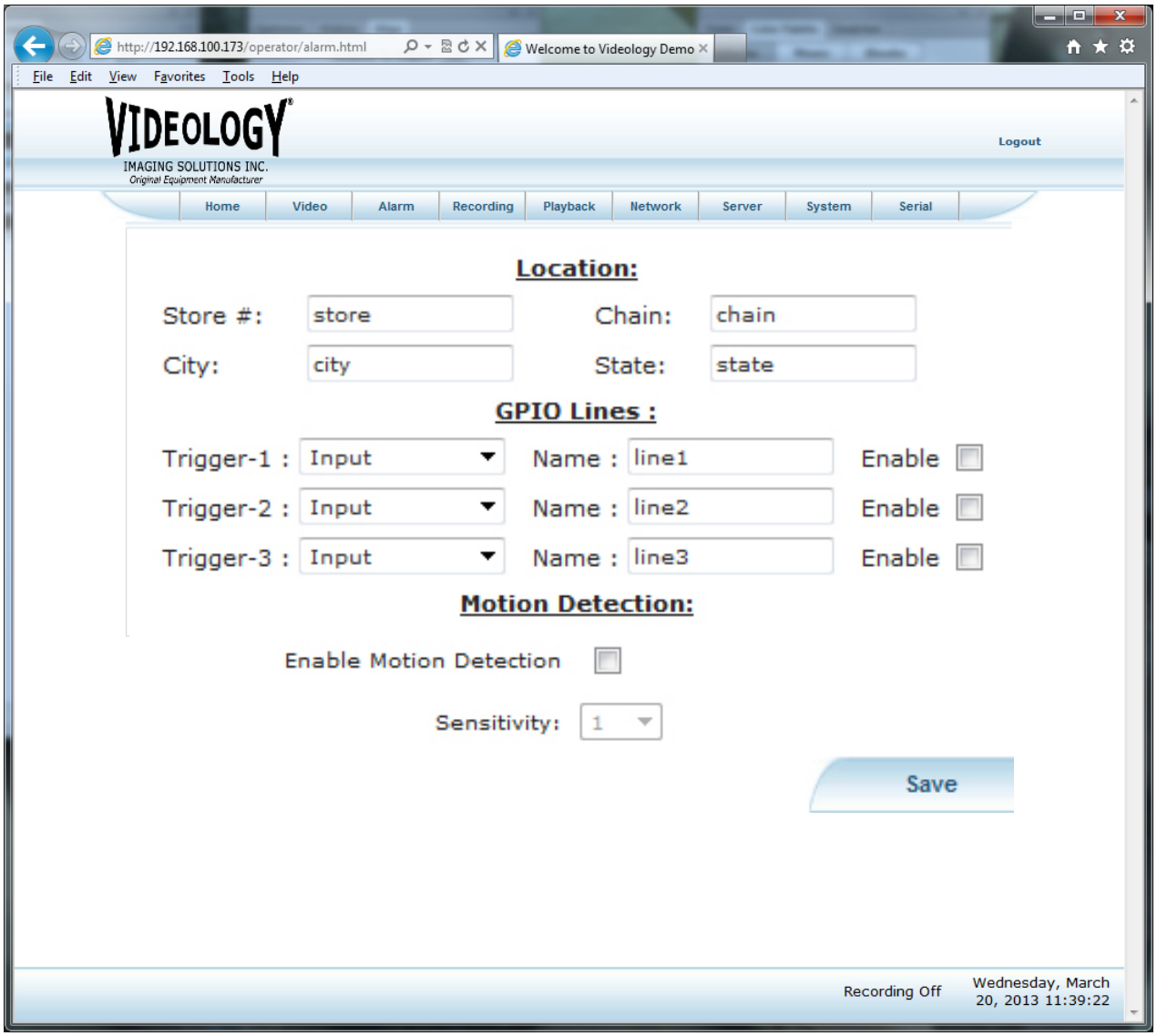
The image controls are located in the lower part of the screen. These allow the user to modify the contrast, brightness, hue and saturation of the image.

The audio controls allow the user to modify volume level and to mute the audio channel.



10.7. Alarm Page

The Alarm page is illustrated below and provides options for configuring alarms and defining trigger events.

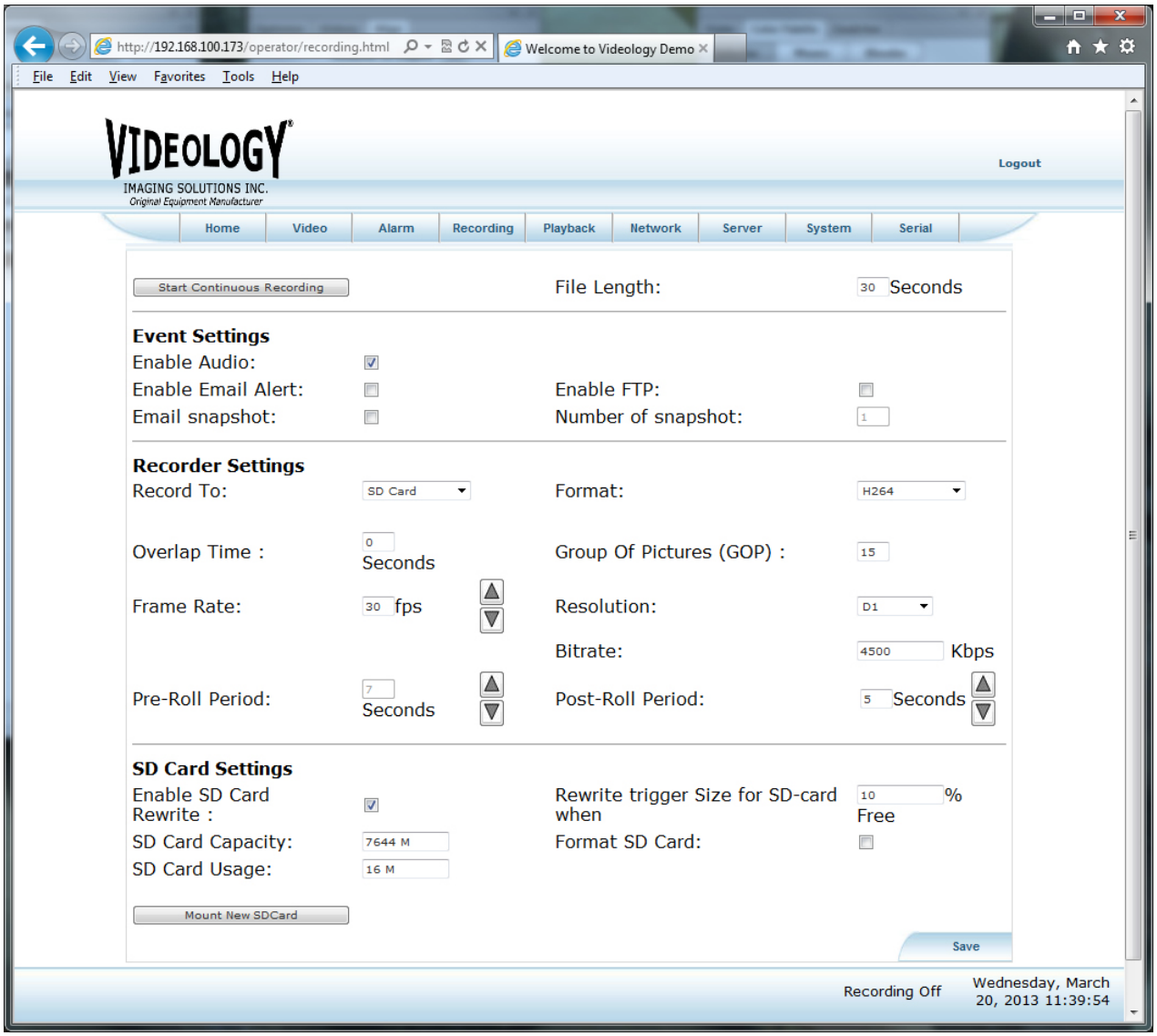


Within the Alarm page the user can perform the following tasks:

- Define the three GPIO lines as either input or output, and assign a logical name to each (e.g. back door, EAS, etc)
    - This name will then be included in the email alert that is sent out in the event of an alarm
- Enable or disable the three GPIO lines
- Enable motion detection and select the sensitivity (1=least sensitive)
- Note: Location fields are limited to 24 characters maximum, spaces allowed
- Note: GPIO Lines fields are limited to 24 characters max, no spaces allowed

10.8. Recording Page

The Recording page is used to define the format and duration of the video files recorded onto the SD card, and to enable or disable email alerts. Note: Pre-Roll Period is fixed at 7 seconds.



10.8.1. Recorder Settings

The Recording page allows the user to define the format and duration of recorded video files. The page contains the following controls:

- Continuous Recording: When pressed, the system will start to record video continuously onto the internal SD card. The recorded video can be broken into short files of a duration specified by the user, in the **File Length** option. The maximum length of a single recording is 1800 seconds.
- Enable Email Alert: When email alert is selected, an email will automatically be sent to the address entered in the SMTP Settings page. The button must be checked if the user wants to be notified via email when an event is taking place – See server ➔ SMTP settings for details
- Record To: SD card or a centralized network storage service.
- Format: Video file compression format (H.264 or MJPEG).

- Frame Rate: The frame rate can be set to any value between 1 and 30 FPS (60 FPS future).
- Resolution: D1, VGA, CIF, QCIF.
- Pre-Roll Period: The pre-roll period is the length of the recording PRIOR to the trigger event (this is currently fixed at 7 seconds).
- Post-Roll Period: The post-roll is the duration of the recording AFTER the trigger event. The post-roll can be set to between 1 - 1800 seconds.

10.8.2. SD Card Settings

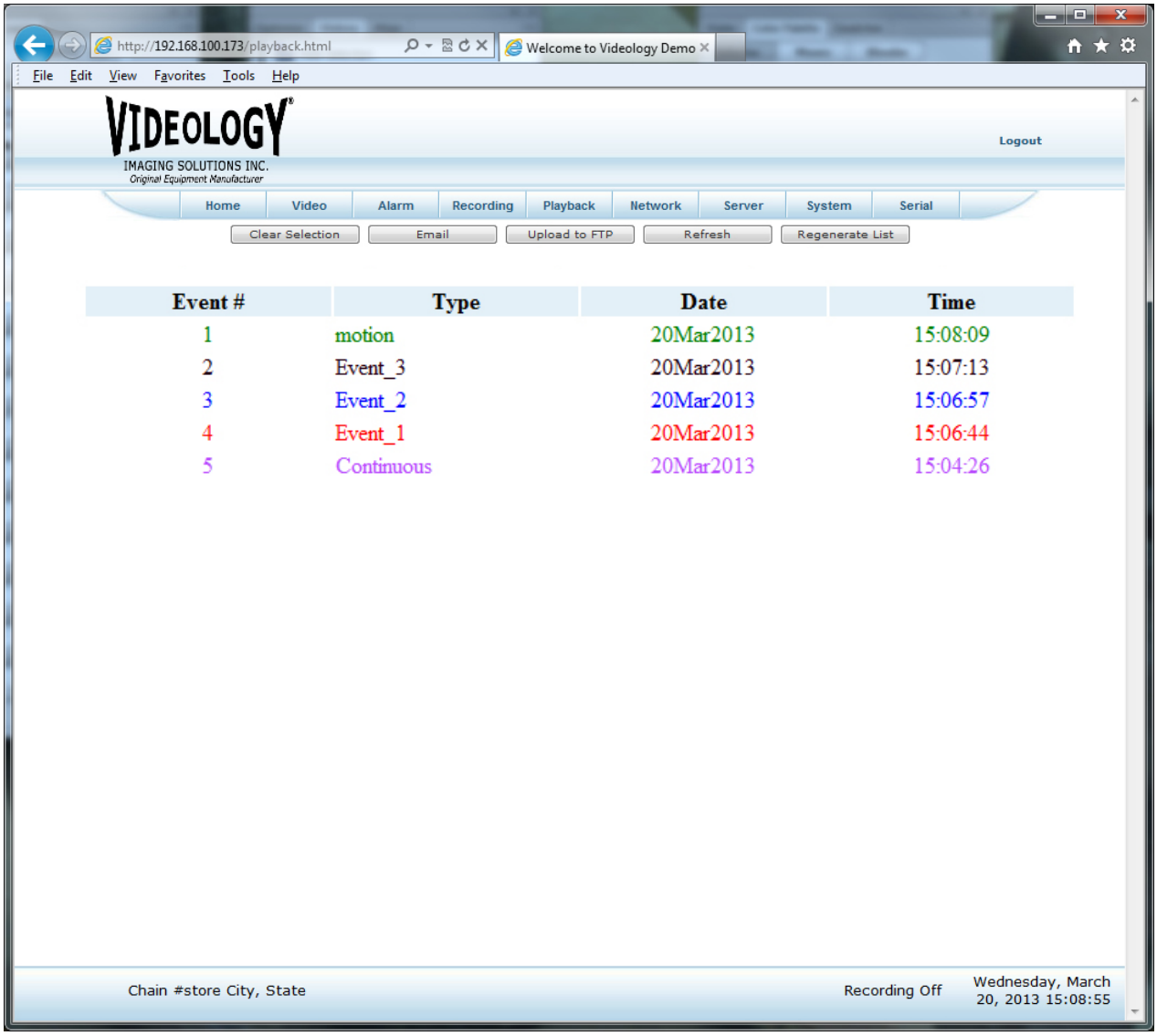
- Enable SD Card Rewrite: If checked, files will be stored onto the SD card in a continuous loop fashion, with the oldest files being overwritten by the newest when the card becomes 80% full.
- Format SD Card: **Checking this button and saving the settings will erase the entire content of the SD card and reformat it.**
- SD CARD Capacity: Shows total capacity of the SD card (Maximum size 32GB).
- SD Card Usage: Shows how much size of the SD card has been already used for file storage.
- Mount New SD Card: If the card was removed from the system while the system was operating, a new card can be inserted. After insertion, press this selection.

To take effect, any change on this page must be completed by clicking on "SAVE" button.

10.9. Playback Page

The Playback page contains a list of all recorded events. Each file in the table contains a descriptor, defining the source of the alarm (this is the logical name assigned to the alarm line in the Alarm page, and the time and date of the event.

Each of the events is color-coded by event type, i.e. motion detect, alarm line 1 etc.


http://192.168.100.173/playback.html
Welcome to Videology Demo
File Edit View Favorites Tools Help
VIDEOLOGY
IMAGING SOLUTIONS INC.
Original Equipment Manufacturer
Logout
Home Video Alarm Recording Playback Network Server System Serial
Clear Selection Email Upload to FTP Refresh Regenerate List
Event # Type Date Time
1 motion 20Mar2013 15:08:09
2 Event_3 20Mar2013 15:07:13
3 Event_2 20Mar2013 15:06:57
4 Event_1 20Mar2013 15:06:44
5 Continuous 20Mar2013 15:04:26
Chain #store City, State
Recording Off
Wednesday, March 20, 2013 15:08:55

The user can view any of the listed files simply by double-clicking on file appropriate line.

Additionally, one or more files may be selected and marked for emailing or uploading to the FTP site (as defined in the Server Page).

Selected files can be deselected simply by hitting the Clear Selection button.

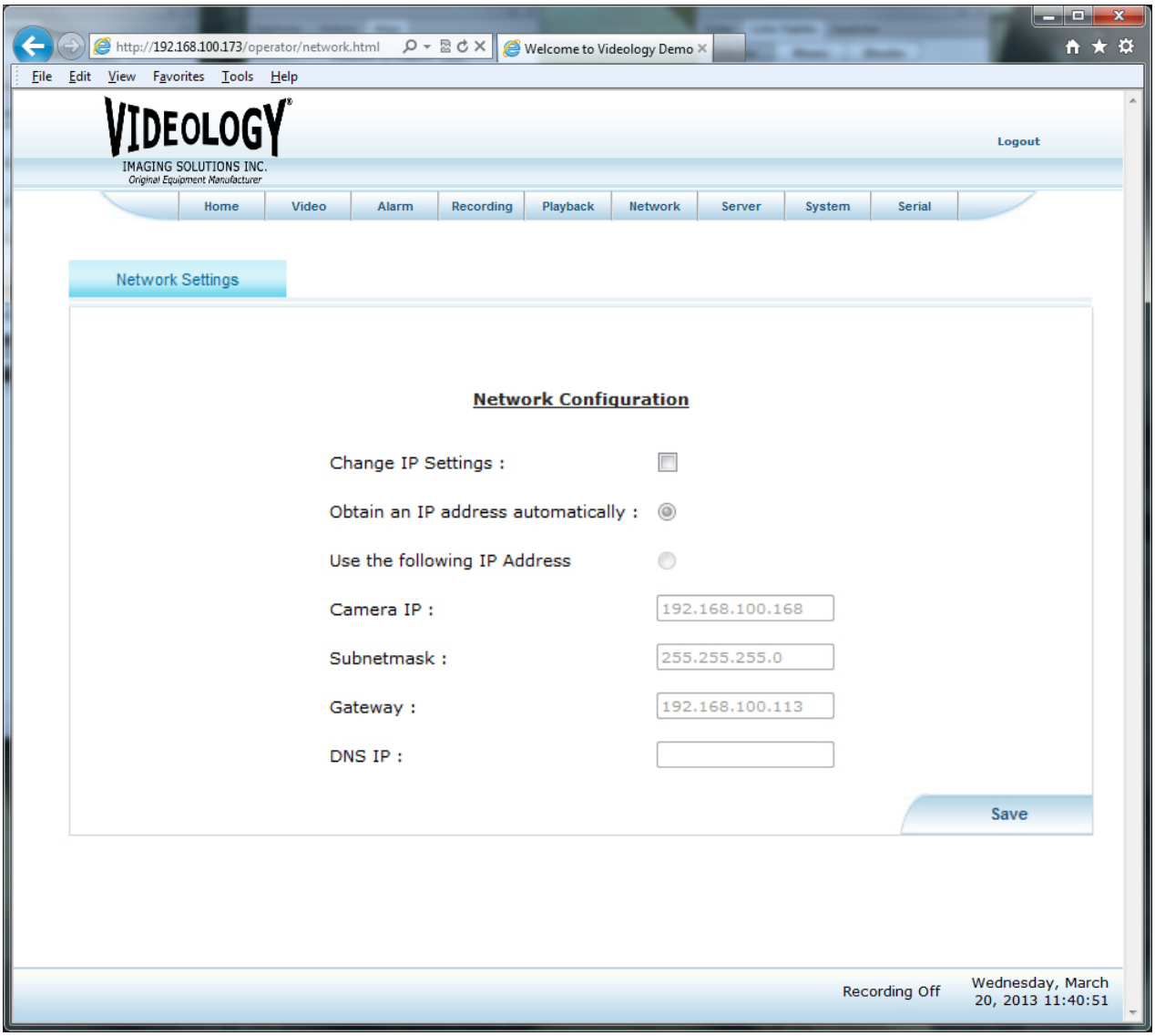
When selecting to Email any file, the entire file is transmitted; this may take several minutes if the file is large.

The Refresh button can be used to speed up the updating of the file listing

The Regenerate List button is used when a new SD card has been placed in the system. It will access the SD card file system and compile a new list of files.

10.10. Network Page

Within the Network page, the users can define the method of establishing an IP address.



The IP address can be either statically assigned or dynamically acquired; this is done by selecting the Change IP Settings button and then selecting either Obtain an IP Address Automatically or Use the Following IP address button.

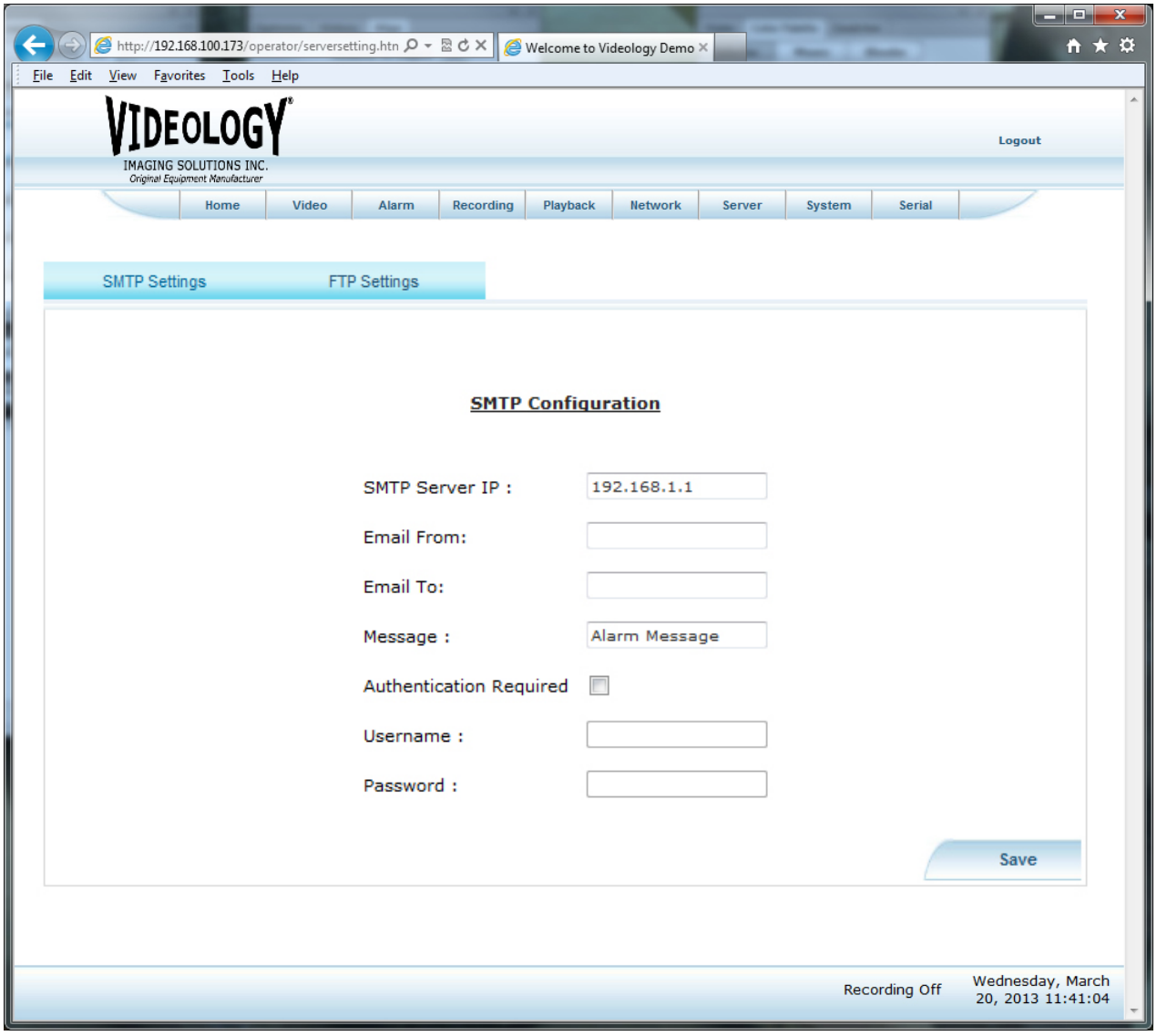
The options to select the camera IP address, Subnet mask, Gateway and Dynamic Name Server (DNS) Server are given if the latter was selected.

The Save button must be clicked to complete the configuration process.

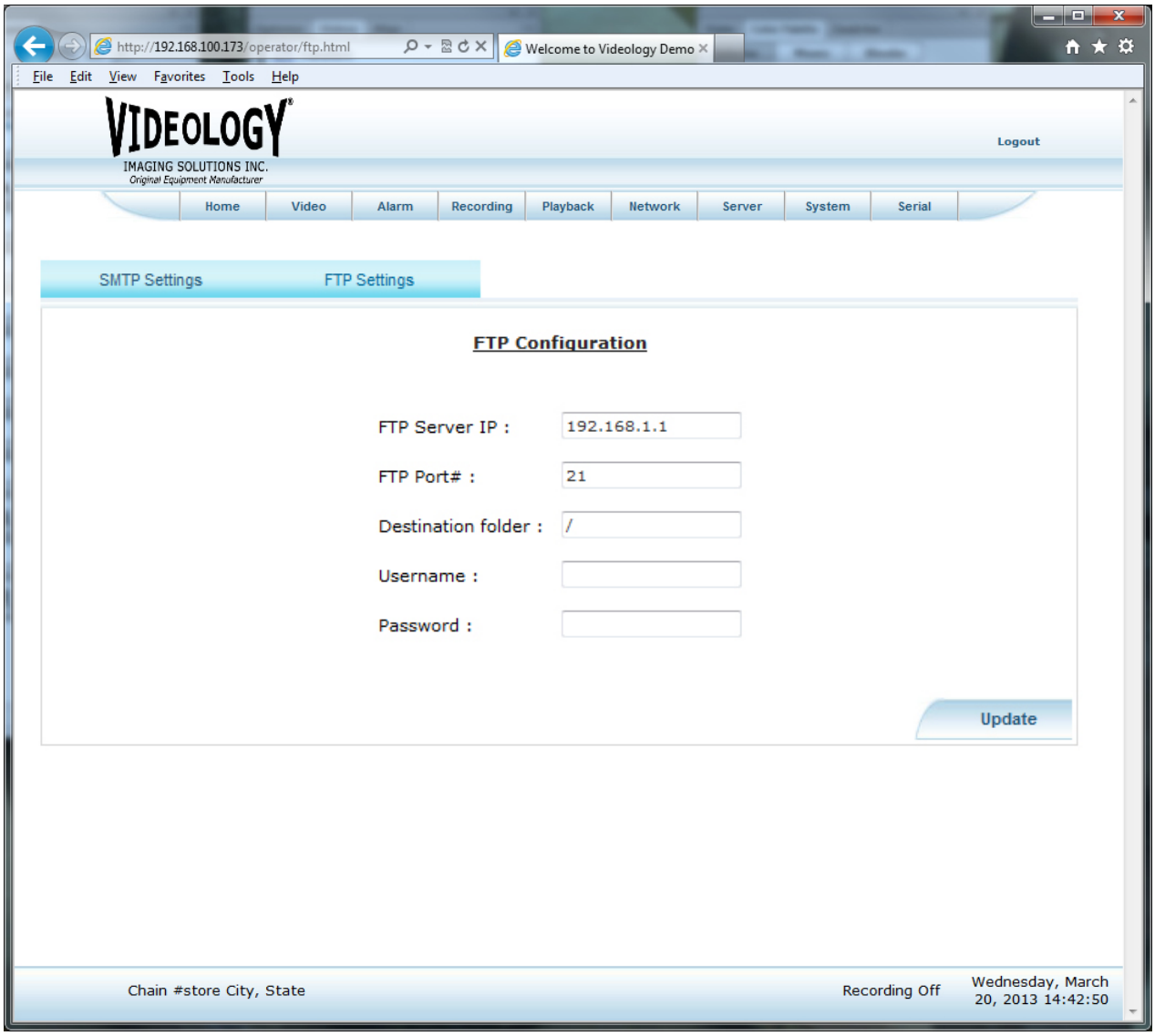
10.11. Server Page

Within the Server page, the user can setup both an FTP server and SMTP server. The FTP server is used to upload video files stored on the internal SD card.

The SMTP server contains the email address to which email alerts are sent in the event of an alarm.



When populating the FTP Server IP field with a hostname (e.g. ftp.example.com) a DNS server address must be specified on the Network Configuration page. If the FTP server's IP is numeric (e.g. 74.125.227.116), a DNS server address is not needed.

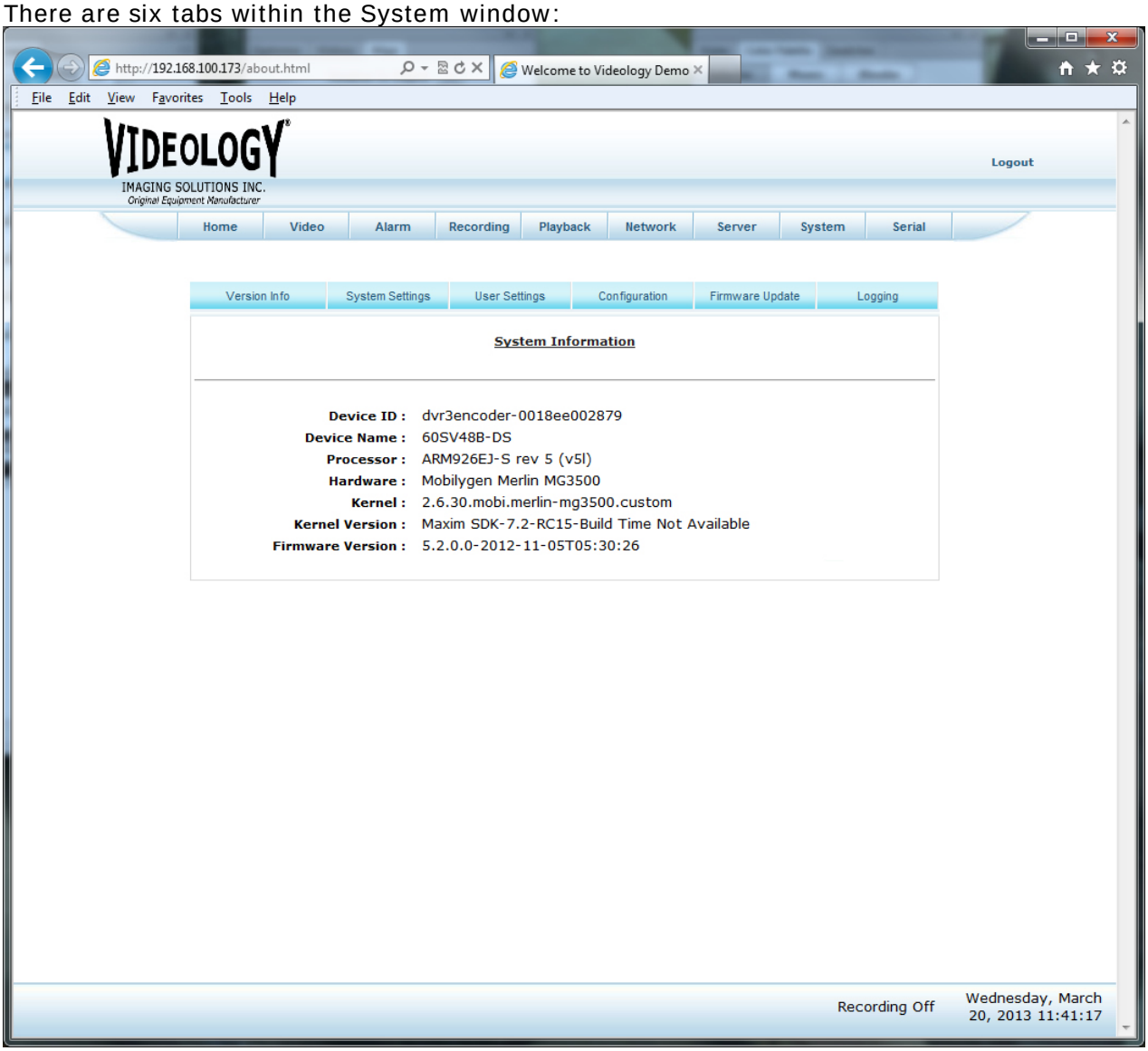


To take effect, any change on this page must be completed by clicking on the Save or Update button in the bottom right hand corner.

10.12. System Page

Note: Any changes to parameters made to or within this page will affect the system functionality. Modifications to the system settings are limited to an administrator.

There are six tabs within the System window:


http://192.168.100.173/about.html
Welcome to Videology Demo
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VIDEOLOGY
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Logout
Home Video Alarm Recording Playback Network Server System Serial
Version Info System Settings User Settings Configuration Firmware Update Logging
System Information
Device ID : dvr3encoder-0018ee002879
Device Name : 60SV48B-DS
Processor : ARM926EJ-S rev 5 (v5l)
Hardware : Mobilygen Merlin MG3500
Kernel : 2.6.30.mobi.merlin-mg3500.custom
Kernel Version : Maxim SDK-7.2-RC15-Build Time Not Available
Firmware Version : 5.2.0.0-2012-11-05T05:30:26
Recording Off
Wednesday, March 20, 2013 11:41:17

The first tab, Version Info provides information on the current software revision of the modules loaded in the server.

The second tab, System Settings provides a means of setting the current time or configuring an NTP server.

The third tab, User Settings is used to create new users, assign passwords and access levels.

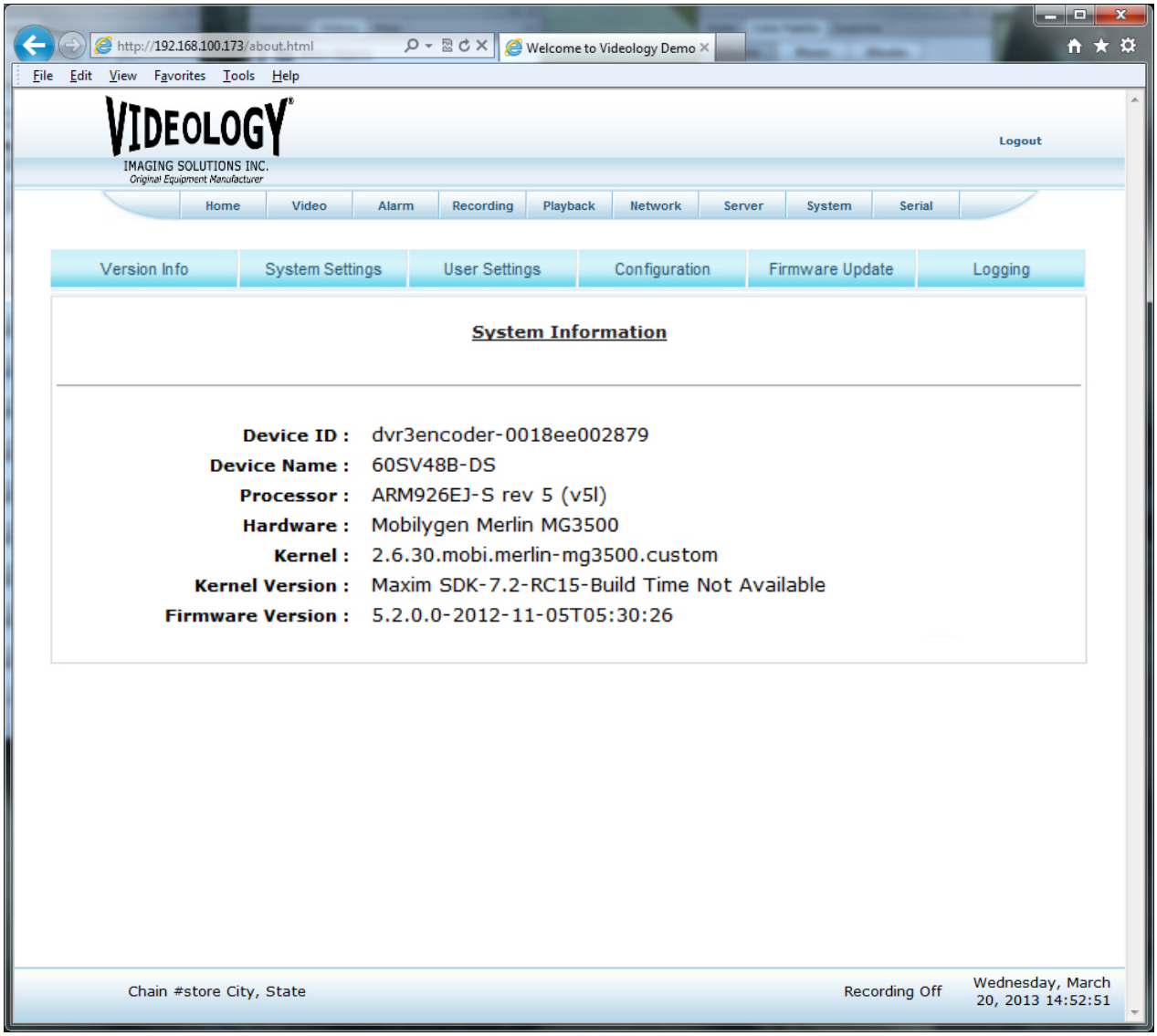
The fourth tab, Configuration is used to select various camera choices and interfaces to the server, including CVBS, S-Video and digital.

The fifth tab, Firmware Update downloads the latest version of the firmware, and then reboots the system (Requires authentication after reboot).

The sixth tab, Logging is used to select which log type and level of detail is presented to the user.

10.12.1. Version Info

On this page the different software module version numbers are displayed.


http://192.168.100.173/about.html
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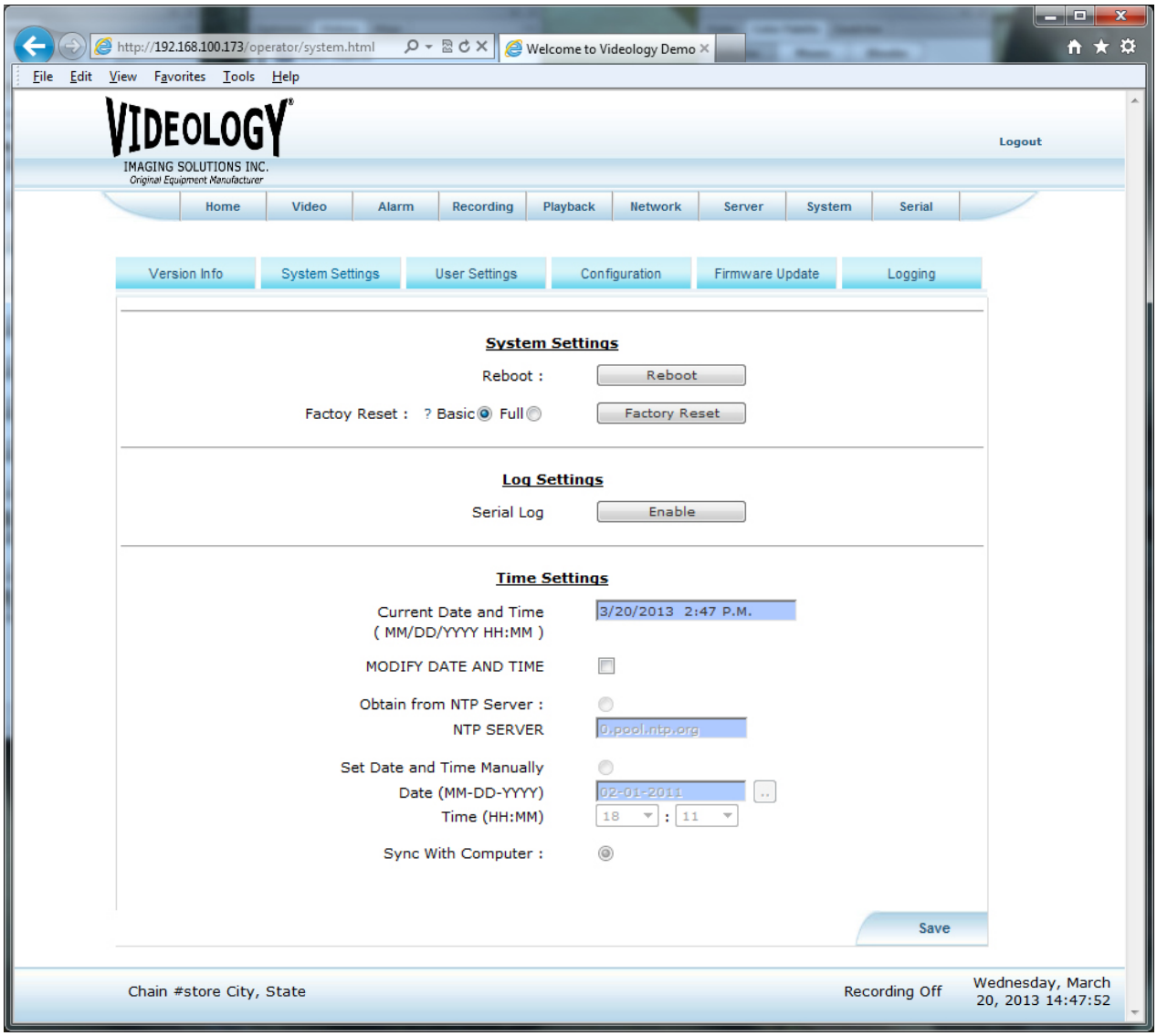
Logout
Home Video Alarm Recording Playback Network Server System Serial
Version Info System Settings User Settings Configuration Firmware Update Logging
System Information
Device ID : dvr3encoder-0018ee002879
Device Name : 60SV48B-DS
Processor : ARM926EJ-S rev 5 (v5l)
Hardware : Mobilygen Merlin MG3500
Kernel : 2.6.30.mobi.merlin-mg3500.custom
Kernel Version : Maxim SDK-7.2-RC15-Build Time Not Available
Firmware Version : 5.2.0.0-2012-11-05T05:30:26
Chain #store City, State
Recording Off
Wednesday, March 20, 2013 14:52:51

10.12.2. System Settings

On this page, you can:

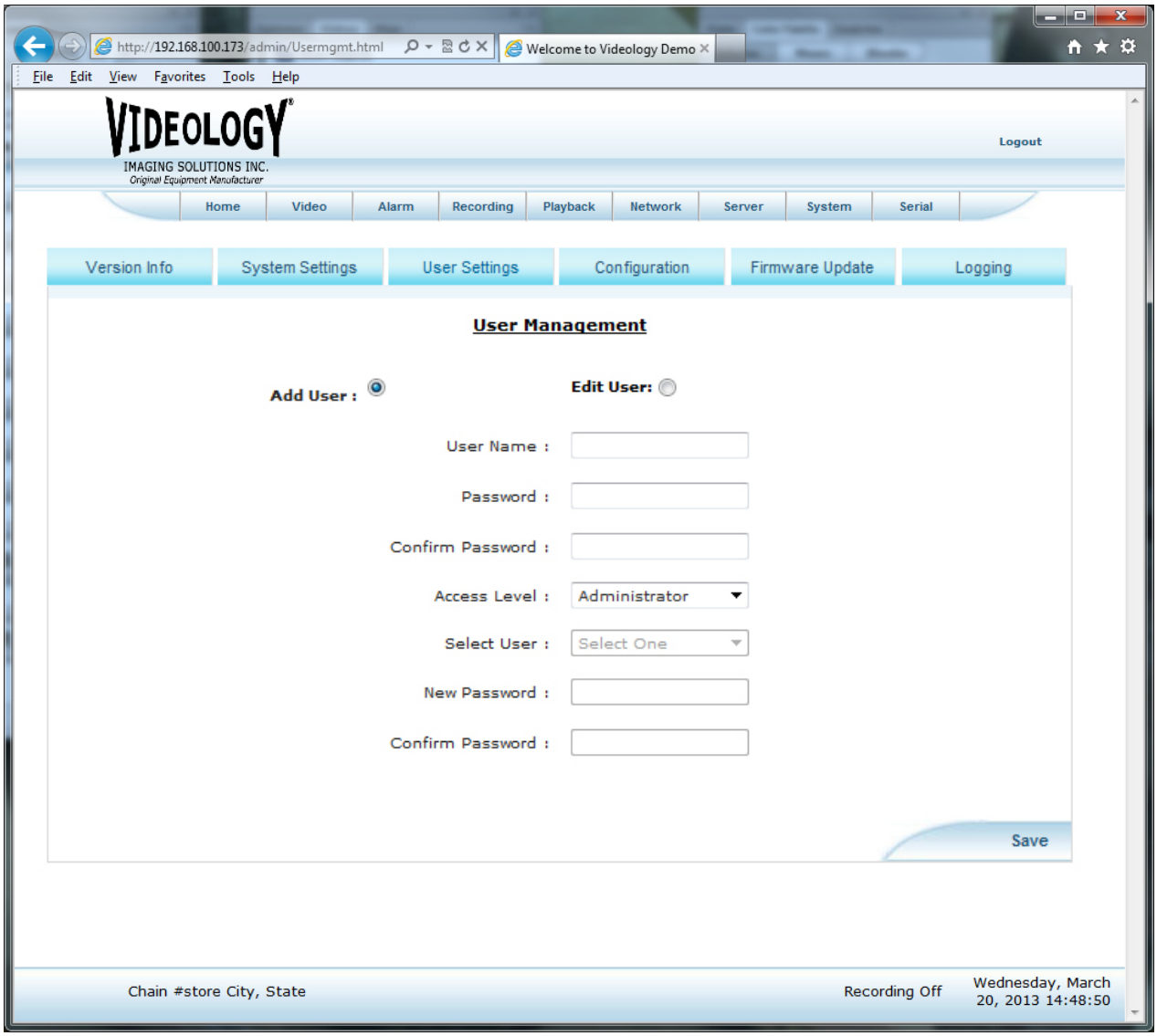
- Reboot the system if needed
- Set the correct time and date for the system. To set the time and date, select the Modify Date and Time box. You can then pick from one of three options:
    - Obtain from NTP server – enter the IP address for an internet NTP server. The system will then obtain the current time from the selected server.
    - Set Date and Time Manually – the user enters the date and time.
    - Sync with Computer – The time and date are obtained from the user's computer.



10.12.3. User Settings

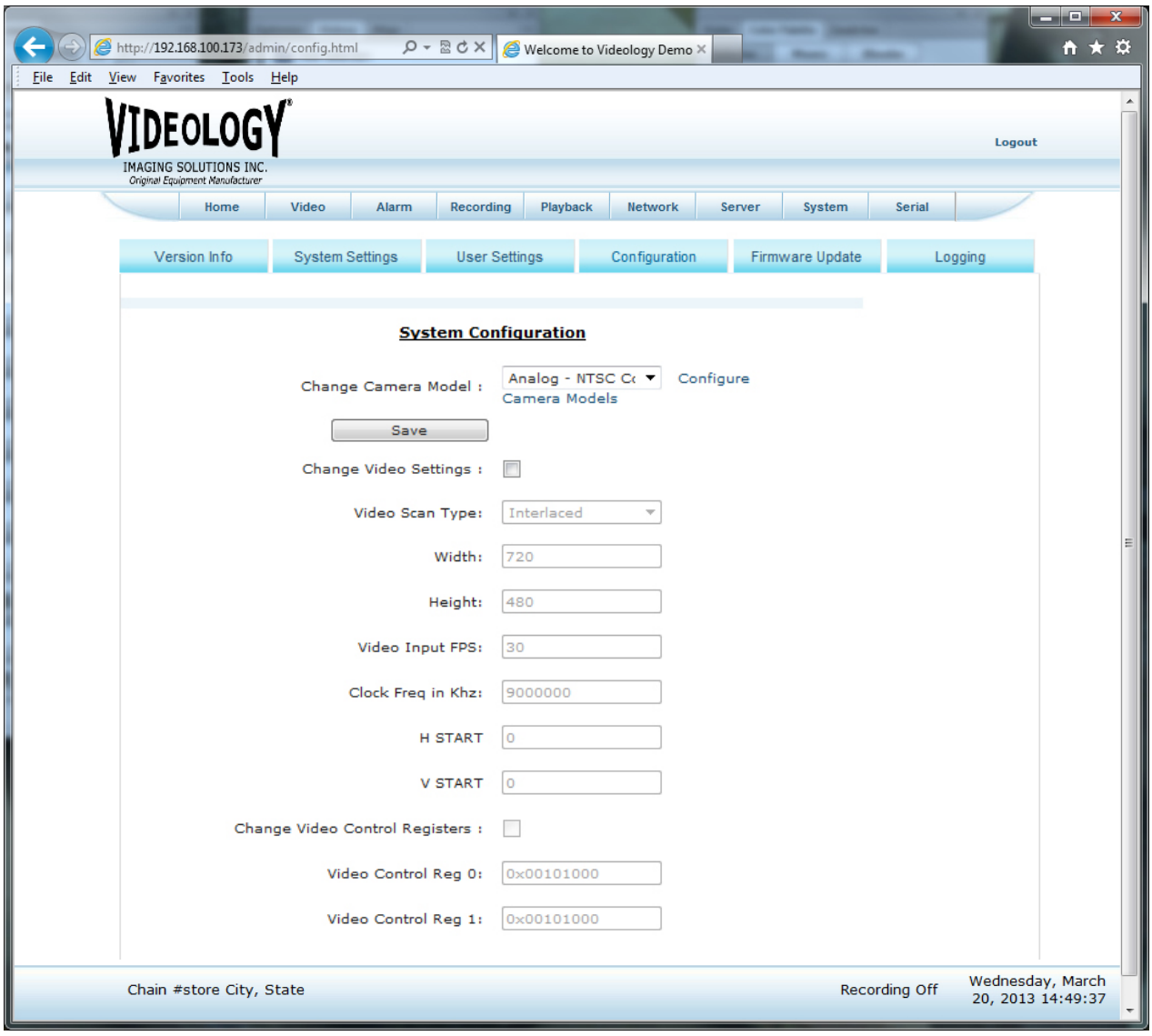
On this tab, the administrator can create and modify user accounts. The system supports three levels of user:

User – the most basic level. A user can only see live video from the Home page.
Operator – this level of user can do all the functions with the exception of adding/changing users.
Administrator – full access to all functions.



10.12.4. Configuration

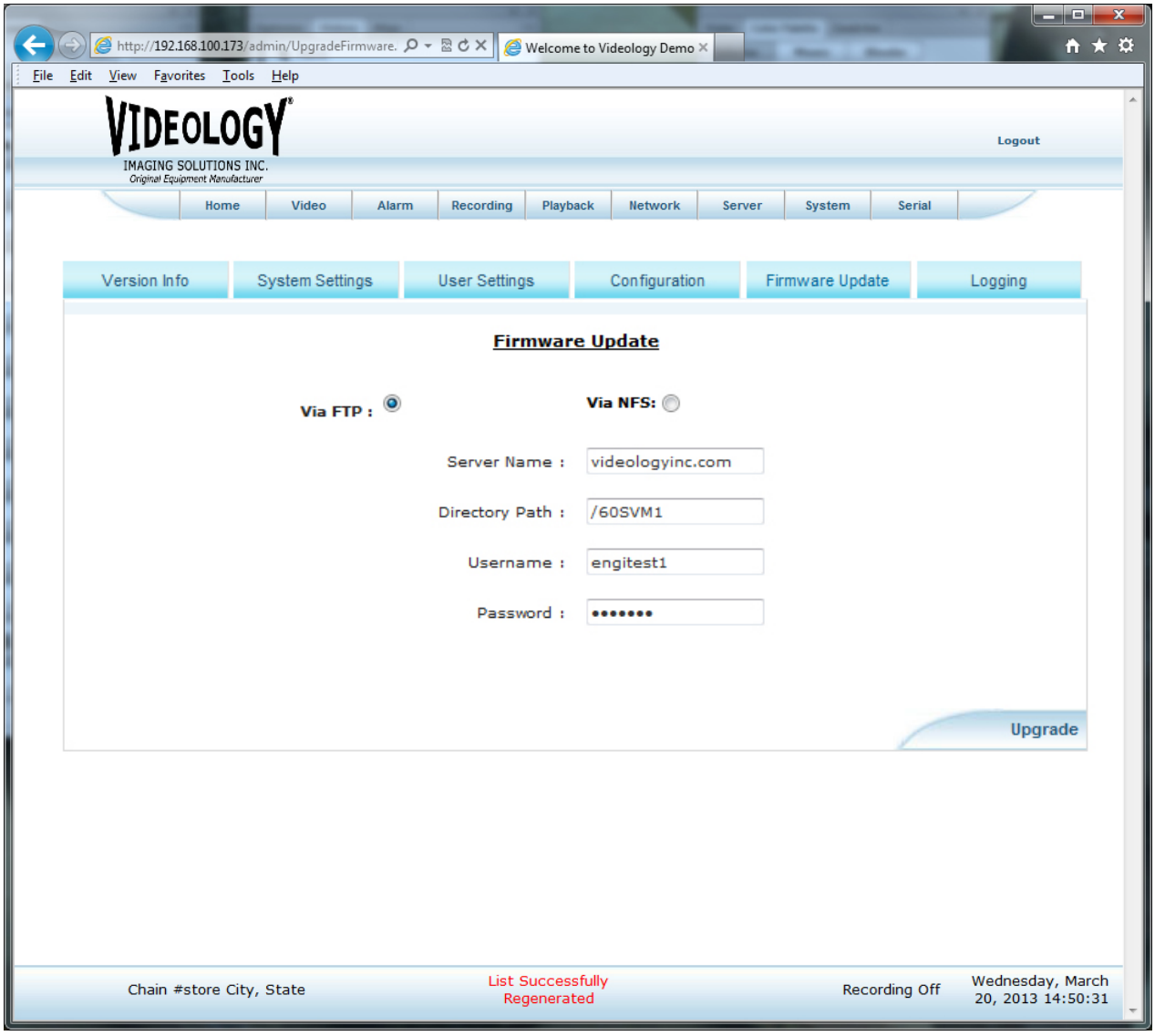
On this tab, the type of video input is selected. Choose Analog for analog cameras and Digital for the 1.3MP for the Videology Imaging Solutions 1.3MP digital camera.



Clock Frequency and Video Control Registers 0 and 1 should only be changed after contacting Videology customer service.

As with other settings, for any changes to take effect, the SAVE button in the lower right corner of the screen must be clicked.

10.12.5. Firmware Update

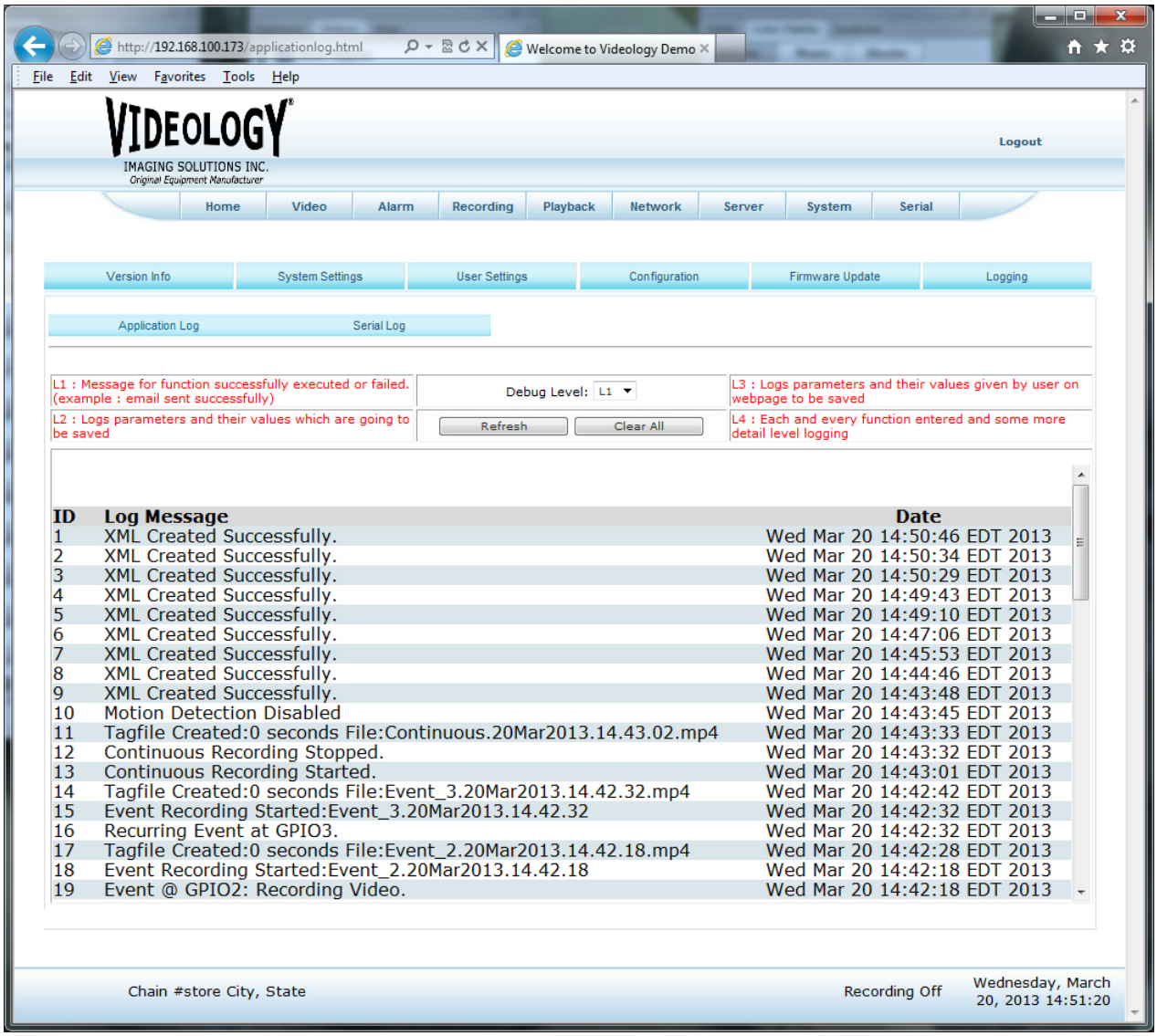


Firmware should only be updated under the direction of Videology customer service.

10.12.6. Logging

On this tab, the user can review previous events in either the application or the serial log. For selecting which one the user wants the list of most previous events.

Application Log


http://192.168.100.173/applicationlog.html
Welcome to Videology Demo
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Logout
Home Video Alarm Recording Playback Network Server System Serial
Version Info System Settings User Settings Configuration Firmware Update Logging
Application Log Serial Log
L1 : Message for function successfully executed or failed. (example : email sent successfully)
Debug Level: L1
L3 : Logs parameters and their values given by user on webpage to be saved
L2 : Logs parameters and their values which are going to be saved
Refresh Clear All
L4 : Each and every function entered and some more detail level logging
ID Log Message Date
1 XML Created Successfully. Wed Mar 20 14:50:46 EDT 2013
2 XML Created Successfully. Wed Mar 20 14:50:34 EDT 2013
3 XML Created Successfully. Wed Mar 20 14:50:29 EDT 2013
4 XML Created Successfully. Wed Mar 20 14:49:43 EDT 2013
5 XML Created Successfully. Wed Mar 20 14:49:10 EDT 2013
6 XML Created Successfully. Wed Mar 20 14:47:06 EDT 2013
7 XML Created Successfully. Wed Mar 20 14:45:53 EDT 2013
8 XML Created Successfully. Wed Mar 20 14:44:46 EDT 2013
9 XML Created Successfully. Wed Mar 20 14:43:48 EDT 2013
10 Motion Detection Disabled Wed Mar 20 14:43:45 EDT 2013
11 Tagfile Created:0 seconds File:Continuous.20Mar2013.14.43.02.mp4 Wed Mar 20 14:43:33 EDT 2013
12 Continuous Recording Stopped. Wed Mar 20 14:43:32 EDT 2013
13 Continuous Recording Started. Wed Mar 20 14:43:01 EDT 2013
14 Tagfile Created:0 seconds File:Event_3.20Mar2013.14.42.32.mp4 Wed Mar 20 14:42:42 EDT 2013
15 Event Recording Started:Event_3.20Mar2013.14.42.32 Wed Mar 20 14:42:32 EDT 2013
16 Recurring Event at GPIO3. Wed Mar 20 14:42:32 EDT 2013
17 Tagfile Created:0 seconds File:Event_2.20Mar2013.14.42.18.mp4 Wed Mar 20 14:42:28 EDT 2013
18 Event Recording Started:Event_2.20Mar2013.14.42.18 Wed Mar 20 14:42:18 EDT 2013
19 Event @ GPIO2: Recording Video. Wed Mar 20 14:42:18 EDT 2013
Chain #store City, State
Recording Off
Wednesday, March 20, 2013 14:51:20

System (Serial) Log – The level allows the developer to drill down into the detail required to acquire the information needed to solve issues.

http://192.168.100.173/slog.html
Welcome to Videology Demo
File Edit View Favorites Tools Help
VIDEOLOGY
IMAGING SOLUTIONS INC.
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Logout
Home Video Alarm Recording Playback Network Server System Serial
Version Info System Settings User Settings Configuration Firmware Update Logging
Application Log Serial Log
System Log
Refresh Clear All Download Email Upload to FTP
MAC Address: 00:18:EE:00:28:79
Firmware versions:
Package 5.2.0.0 2012-11-05T05:30:26
Maxim SDK 7.2-RC15
web_app_record
mc2_3s_record.lua 1.3.1.0 2010-12-13
lighttpd 1.4.28 Jun 23 2011 09:16:11
IP Address is 192.168.100.173
mounting
Dynamic is true
Updates
Chain #store City, State
Recording Off
Wednesday, March 20, 2013 15:27:40

11. Serial Port

The serial port is an RS232C port that can be used to communicate to a number of external devices. Two screens are available the first the settings port, and the second a GPS interface port.

Selections are as follows:

Select serial port ttyS1 – debug port
ttyS2 – communications port

Baud rate - 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400.

Data Bits – default is 8 bits others available – 5, 6, 7

Serial port type – RS232 only

Stop bits – 1 or 2

Parity – None, even, odd

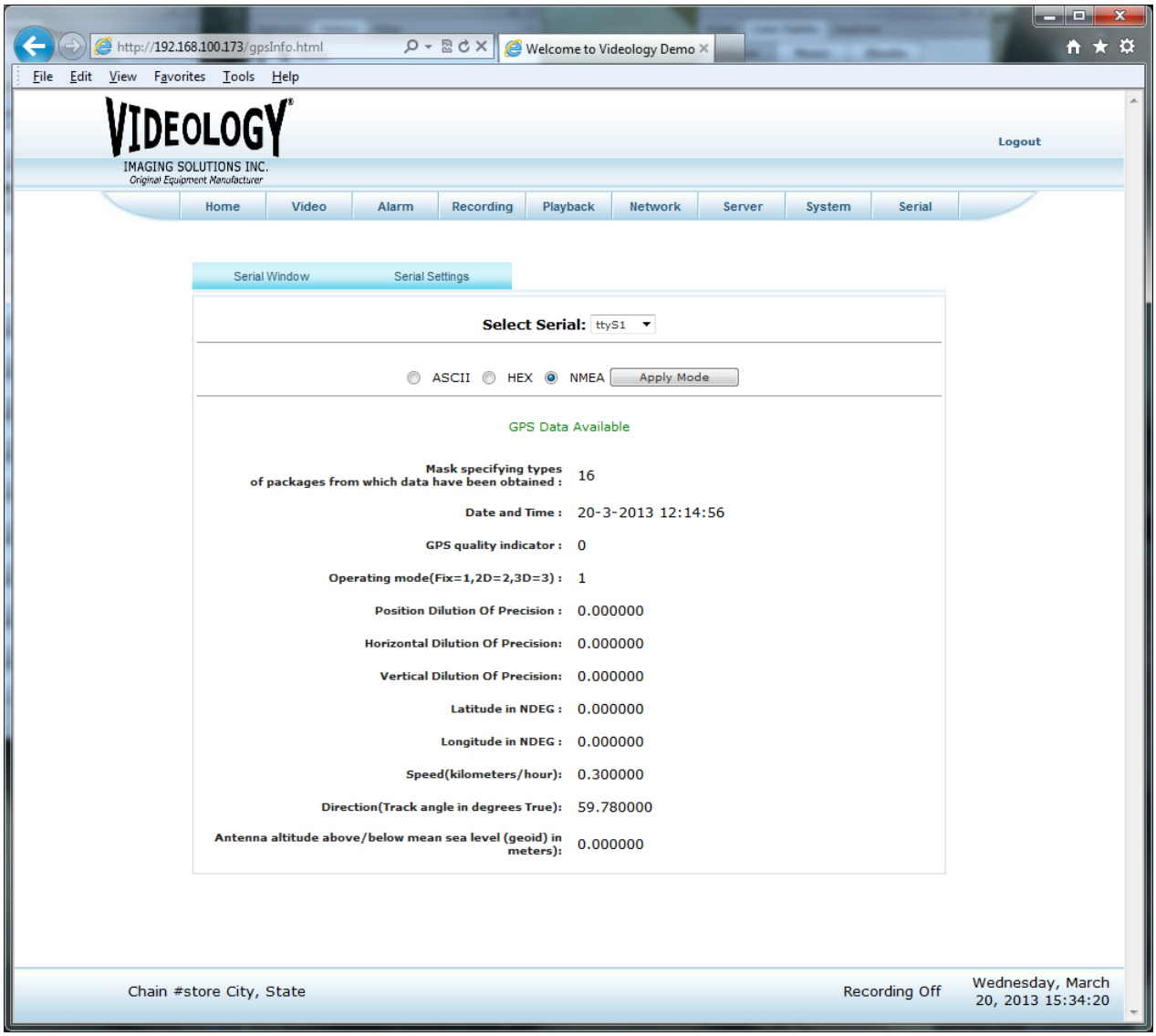
Duplex mode – full w

11.1. Serial Window

A serial window is provided to track communications on the serial port. This can be viewed in either ASCII or Hexadecimal values.

11.2. Select Serial - NMEA

This is the output of a GPS attached to the 60SMV1.
This selection gives the location of the GPS receiver.


http://192.168.100.173/gpsInfo.html
Welcome to Videology Demo
File Edit View Favorites Tools Help
VIDEOLOGY
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Logout
Home Video Alarm Recording Playback Network Server System Serial
Serial Window Serial Settings
Select Serial: ttyS1
ASCII HEX NMEA Apply Mode
GPS Data Available
Mask specifying types of packages from which data have been obtained : 16
Date and Time : 20-3-2013 12:14:56
GPS quality indicator : 0
Operating mode(Fix=1,2D=2,3D=3) : 1
Position Dilution Of Precision : 0.000000
Horizontal Dilution Of Precision: 0.000000
Vertical Dilution Of Precision: 0.000000
Latitude in NDEG : 0.000000
Longitude in NDEG : 0.000000
Speed(kilometers/hour): 0.300000
Direction(Track angle in degrees True): 59.780000
Antenna altitude above/below mean sea level (geoid) in meters): 0.000000
Chain #store City, State
Recording Off
Wednesday, March 20, 2013 15:34:20

Mask specifying types of packages from which data have been obtained:

- Date and Time: GMT
- GPS quality indicator: 0 – no fix, 1=GPS fix, 2=Dif. GPS fix
- Operating mode (Fix=1, 2D=2, 3D=3):
- Position Dilution of Precision: value >1 to <20 confidence level of the accuracy of position
- Horizontal Dilution of Precision: value >1 to <20 confidence level of the accuracy of position
- Vertical Dilution of Precision: value >1 to <20 confidence level of the accuracy of position
- Latitude in NDEG: +/- degree, minute
- Longitude in NDEG: +/- degree, minute
- Speed (kilometers/hour):
- Direction (Track angle in degrees True): number of degrees from true geographical north
- Antenna altitude above/below mean sea level (geoid) in meters):

12. Contact Information

For technical assistance with this product, please contact the supplier from whom the product was purchased.

For OEM inquiries, contact Videology® Imaging Solutions:

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Please visit our website: videologyinc.com

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